Washington State Office of Administrative Hearings

Efficiency Review

Appendices

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Washington State Office of Administrative Hearings
Efficiency Review
List of Appendices

Appendix A: Interviewees

The following people were interviewed or contacted as part of this review:

OAH Headquarters:

Lorraine Lee, Chief Administrative Law Judge

Stephanie Croom Williams, Deputy Chief Administrative Law Judge

Don Chase, Information Technology Manager

Les Myhre, Financial Manager

Jane Habegger, Assistant Deputy Chief

Seattle Office:

Anita Crawford-Willis, Co-Assistant Deputy Chief

Mary Radcliffe, Co-Assistant Deputy Chief

Tarisse Injerd, LS3, Office Manager

Robin Bale, ALJ

Monty Fitch, ALJ

Devilliers Steyn, LS1

Leslie Wagner, ALJ

Karlynn Green-Sconce, Contract employee

Inna Levin, Contract employee

Jill Nedved, LS1

Kathy Lovejoy, ALJ

John Kriebel, LS1

Renee Harris-Cohen, LS1

Casy Shermerhorn, LS1

Jan Shave, ALJ

Sarah Frewen, LS1

Victoria Lillquist, LS1

Lan Le, LS1

Cornelius Ryan, OA3

Brad Roberts, LS1

Shabane Williams, OA3

Ryan Jager, OA3

Paula Thomas, contract employee

Tony Horak, OA3

Kim Boyce, ALJ

Christie Gerhart Cufley, Senior ALJ

Olympia Office:

Robert Krabill, Assistant Deputy Chief

Elmer Canfield, ALJ

Jeff Manson, ALJ

Alice Haenle, ALJ

Pat Morgan, pro tem ALJ

Cindy Burdue, ALJ

Rica Helberg, LS3, Office Manager

Cathy Havens, LS1

Sharon Middleton, LS1

Amanda Turner-Jacquez, OA3

Ruth Collins, OA3

Spokane Office:

David Hansen, Assistant Deputy Chief

Patricia McNeilly, LS3, Office Manager

Debi Boucher, LS1

Kevi Burton, OA3

Claudia Erickson, LS1

William Stewart, Senior ALJ

Wynne O'Brien Persons, ALJ

Richard Roberts, ALJ

John Gaffney, Senior ALJ

Ed Steinmetz, ALJ

Jim Skeel, ALJ

Rosemary Otto, ALJ

Shelley Vanderzanden, OA3

Yakima Office

Johnette Sullivan Assistant Deputy Chief

Chris Blas, Senior ALJ

Craig Davenport, ALJ

Randy Bolong, ALJ

Heidi Bolong, ALJ

Cary Campbell, LS3

Eileen Weresch-Doorink, pro tem ALJ

Renee Thomas, LS1

Ellen Ensign, OA3

Vancouver Office

Gina Hale, Assistant Deputy Chief

Julie Emmel, ALJ

Gloria Biseno, ALJ

Beth Campanga, OA3

Theresa Anthony, OA3

Natalee Dickerson, LS1

Customers/Stakeholders

Terre Penn, Senior Enterprise Project Manager, DSHS Community Services Division

Shannon Monroe, Program Manager, DSHS Community Services Division*

Ellen Nolan, Chief of Policy, DSHS Division of Child Support (DCS)

Diane McDaniel, Division Chief of Licensing and Administrative Law, Washington Attorney General's Office

Robin Zukoski Managing Attorney of the Olympia Office, Columbia Legal Services

Lisa Brodoff, Professor, Seattle University Law School and former Chief Judge of OAH

William Rudnick, Manager Government Relations, TALX UC

Toni Kerr, Hearings Representative, TALX UC

Lori Roberts, National Office, TALX UC

John Tirpak, Attorney, Unemployment Law project

Mark Lamson, Director, Unemployment Law Project

Jason Arehns, Attorney, Unemployment Law Project

Nan Thomas, Assistant Commissioner, Employment Security Department

Neil Gorrell, Deputy Director for Unemployment Insurance, Employment Security Department

Doug Gough, Budget Manager for Unemployment Insurance, Employment Security Department

* Shannon Monroe also conducted an informal survey of Hearing Coordinators on our behalf. (We supplied questions.)

Appendix B: Instructions for Creating an OAH Weighted Caseload Model

Simple Model

1. Select a review period.

- Identify a one to three year period where reliable data are available in both the Time Management System (TMS) and "Tracker" Reports, where overall performance (timeliness, quality) met or exceeded standards, and where accrued overtime in the ESD caseload was likely to be minimal.

2. Confirm effort expended.

- Collect total work hours and leave hours reported by individual and customer/program in the OAH Time Management System (TMS). Use the time period established in Step 1.
- Summarize total hours by position type (ALJ/pro tem, support staff), customer, and program (ESD only) or major program category (DSHS only).

3. Confirm historical workload.

- Use "Tracker" Report summaries of ACTS, HATSS and CATS data to identify the total number of appeals filed during the review period.
- Summarize appeals by customer, program (ESD only) and major program category (DSHS only.)

4. Develop standard hours/appeal.

- Calculate the total hours per appeal, by position type for each customer, program or major program category.
- Develop standard hours/appeal by customer/program and employee type. Adjust standards using professional judgment.

5. Project future workloads.

- Monitor changing appeals volumes.
- Multiply standard hours per appeal by monthly or quarterly projections of appeals workload to identify the total number of hours required to complete workload (based on historical trends).

6. Calculate staffing needs.

- Calculate case-related FTE positions required, by type. (Divide standard hours by 2080 for annual projections, 520 for quarterly projections, and 173.33 for monthly projections.)
- Add a standard FTE allowance for leave time.
- Compare projected FTE requirements with current FTE resource and make adjustments as needed.

7. Maintain the model.

- Re-examine standards after significant changes to/improvements in process or technologies. Make adjustments as necessary.

Possible Refinements to Simple Model:

- Use the total number of case closures and/or decisions rendered instead of appeals filed. This is a better match of work effort to work produced, and is consistent with ESD's Resource Justification Model as well as national weighted caseload practices. This would require OAH to project expected decisions based on the number of appeals received.
- Separate work hours from leave hours in the model. Calculate required FTE for work hours only. Use average leave rates to develop a factor, expressed as FTE positions, to use in step 6.
- Clearly identify available FTE resources by establishing an FTE position for each employee. Confirm the maximum availability of each pro tem ALJ (if availability is limited.)

Longer-Term Improvements:

- Use the Time Management System (TMS) to track actual hours worked for every customer/program.
- Collect data to refine standards for each customer, program or program category using data and assumptions about:
  - % of cases that have pre-hearing conferences
  - % of cases that go to hearing
  - % of cases with continuances (and average number of continuances)
  - Average (or standard) hearing time – interpreter and non-interpreter
  - % of cases that are reconsidered
- Use employee time logs, Delphi method (structured employee estimates), and management experience to refine standards or assumptions.

The following table illustrates how standards might be presented. This table uses actual hours worked (net of leave) and so should not be compared to existing ESD standard minutes per unit without making an adjustment to add back leave.

Hours Worked (Non-Leave) Per Appeal
By Customer/Program
Source: OAH Tracking Report 2010 (Corrected)
State FY 2008-2009

Customer/Program	Appeals Received (Filed)	Appeals Closed	Orders Issued	ALJ & Pro Tem Hours	SS Hours	Total Hours	Hours Per Appeal Received: ALJ & Pro Tem Hours	Hours Per Appeal Received: SS Hours	Hours Per Appeal Received: Total Hours
Employment Security (ES)									
Non UI	1,076	1,014		10,542.85	3,896.65	14,439.50	9.798	3.621	13.420
UI	30,114	27,993		46,403.39	29,066.48	75,469.87	1.541	0.965	2.506
Total	31,190	29,007		56,946.24	32,963.13	89,909.37			
Social and Health Services (DSHS)									
Public Assistance	14,155		1,971						
Child Support	12,241		3,031						
Licensing	795		263						
Juvenile Rehabilitation	190		64						
Total	27,381	25,827	5,329	59,991.55	32,953.03	92,944.58	2.191	1.203	3.394
Supt of Public Instruction (SPI)	185		31	5,795.00	1,637.60	7,432.60	31.324	8.852	40.176
Dept. of Licensing (DOL)	49		11	553.00	183.65	736.65	11.286	3.748	15.034
Gambling (GMB)	97		13	293.50	123.40	416.90	3.026	1.272	4.298
Liquor Control Board (LCB)	57		16	441.55	156.35	597.90	7.746	2.743	10.489
Other									
Attorney General's Office	7		1	68.00	38.55	106.55	9.714	5.507	15.221
Board of Pilotage Commissioners	4			2.00	4.40	6.40	0.500	1.100	1.600
Colleges	2						-	-	-
Department of Agriculture	10		-	4.00	17.60	21.60	0.400	1.760	2.160
Department of Early Learning (DEL)	150		30	1,479.00	323.15	1,802.15	9.860	2.154	12.014
EFSEC	-								
Employee Overpayment	-		30						
Energy Facility Site Council	-								
Ethics Board	2								
Financial Institutions (DFI)	79		5	285.59	284.15	569.74	3.615	3.597	7.212
Fish & Wildlife (FW)	12		1	8.50	13.55	22.05	0.708	1.129	1.838
General Administration (GA)	-		1	64.00	1.00	65.00			

Hours Worked (Non-Leave) Per Appeal

By Customer/Program
Source: OAH Tracking Report 2010 (Corrected)
State FY 2008-2009

Customer/Program	Appeals Received (Filed)	Appeals Closed	Orders Issued	ALJ & Pro Tem Hours	SS Hours	Total Hours	Hours Per Appeal Received: ALJ & Pro Tem Hours	Hours Per Appeal Received: SS Hours	Hours Per Appeal Received: Total Hours
Other (Continued)									
Health Care Authority (HCA)	2			-	3.50	3.50	-	1.750	1.750
Human Rights (HRC)	2			27.25	4.00	31.25	13.625	2.000	15.625
Insurance Commission (INS)	-			58.85	35.50	94.35			
Labor & Industries (LI)	370		45	1,109.87	637.30	1,747.17	3.000	1.722	4.722
Lottery (LTY)	2			0.50	-	0.50	0.250	-	0.250
Minority Business Enterprises	-								
Natural Resources (DNR)	2		3	34.85	6.00	40.85	17.425	3.000	20.425
Polution Liability Insurance	-								
Retirement Services (DRS)	-		2	19.00	-	19.00			
School for the Deaf	-								
Secretary of State (SOS)	1			11.75	2.00	13.75	11.750	2.000	13.750
Sound Transit	-								
Services for the Blind	-								
State Patrol (WSP)	23			114.00	52.10	166.10	4.957	2.265	7.222
Transportation (DOT)	6		1	74.50	6.00	80.50	12.417	1.000	13.417
Workforce Training (WTE)	1			-	3.30	3.30	-	3.300	3.300
Local Governments (LGW)	5		1	119.84	10.00	129.84	23.968	2.000	25.968
Others Not Identified				17.50	10.00	27.50			
Total	59,639	54,834	5,520	127,502.34	69,459.25	196,961.59			

Appendix C: Workload and Staffing Data

Office of Administrative Hearings
Headcount and FTE Positions, by Office
FY 2008-2009

Office & Position Type	1 Headcount	2 Ave FTE Per Fiscal Office	3 Adjusted FTE	4 FTE Based on Standard Hours	5 HC Utili-zation (4/1)	6 FTE Utili-zation (4/3)	7 Ave Standard FTE (4/1)	8 Support Staff per ALJ
Olympia								
ALJ	12.00		11.00	11.27	94.0%	102.5%	0.94	
ALJ - Pro Tem	11.00		4.00	4.00	36.3%	100.0%	0.36	
Support	11.00		8.50	8.02	72.9%	94.3%	0.73	
Total:	**34.00**	**22.96**	**23.50**	**23.29**	**68.5%**	**99.1%**	**0.68**	**0.57**
Seattle								
ALJ	26.00		20.80	20.47	78.7%	98.4%	0.79	
ALJ - Pro Tem	23.00		7.72	7.72	33.5%	100.0%	0.34	
Support	22.00		13.95	13.85	62.9%	99.3%	0.63	
Total:	**71.00**	**43.41**	**42.47**	**42.04**	**59.2%**	**99.0%**	**0.59**	**0.49**
Spokane								
ALJ	15.00		14.00	13.78	91.9%	98.4%	0.92	
ALJ - Pro Tem	9.00		1.38	1.38	15.4%	100.0%	0.15	
Support	10.00		10.00	10.05	100.5%	100.5%	1.00	
Total:	**34.00**	**23.84**	**25.38**	**25.21**	**74.2%**	**99.3%**	**0.74**	**0.65**
Vancouver								
ALJ	3.00		3.00	3.11	103.8%	103.8%	1.04	
ALJ - Pro Tem	3.00		1.98	1.98	66.1%	100.0%	0.66	
Support	4.00		4.00	4.01	100.3%	100.3%	1.00	
Total:	**10.00**	**8.69**	**8.98**	**9.11**	**91.1%**	**101.4%**	**0.91**	**0.80**
Yakima								
ALJ	5.00		5.00	5.55	111.0%	111.0%	1.11	
ALJ - Pro Tem	6.00		1.80	1.80	29.9%	100.0%	0.30	
Support	5.00		4.00	4.22	84.3%	105.4%	0.84	
Total:	**16.00**	**10.46**	**10.80**	**11.56**	**72.3%**	**107.1%**	**0.72**	**0.59**
Total OAH								
ALJ	61.00		53.80	54.20	88.8%	100.7%	0.89	
ALJ - Pro Tem	52.00		16.87	16.87	32.4%	100.0%	0.32	
Support	52.00		40.45	40.14	77.2%	99.2%	0.77	
Total:	**165.00**	**109.35**	**111.12**	**111.21**	**67.4%**	**100.1%**	**0.67**	**0.57**

1. Count of all unique individuals reporting hours to the Time Management System (TMS) July 2008- June 2009. Will overstate the actual headcount at any given time.
2. Mean average of Full Time Equivalent (FTE) positions reported as of 6/30/2008 and 6/30/2009 per OAH Fiscal Office. (Does not
3. Estimated FTE positions using annotated organization charts & TMS reported hours as a guide. Uses actual Pro-Tem hours to calcuate Pro-Tem FTE.
4. FTE positions calculated by taking actual hours reported (worked hours plus leave) divided by standard hours of 2080 per year. This number is understated, since the worked hours that may be reported are limited/capped for some customers and
5. Indicator of the incidence of part-time positions and/or staff turnover.
6. Rough indicator of staff utilization. Actual hours worked may be higher than standard hours for offices with a higher mix of "specials" cases. Pro-tems will always be 100% utilized, since their FTE is calculated using actual hours.

Office of Administrative Hearings
On-the-Job FTE by Office
FY 2008-2009

Office and Position Type	1 Ave FTE Per Fiscal Office	2 Adjusted FTE	3 FTE Per Standard Hours	4 Worked Hours (% of total)	5 Leave Hours (% of total)	6 On The Job FTE (3 x 4)
Olympia						
ALJ		11.00	11.27	85.4%	14.6%	9.63
ALJ - Pro Tem		4.00	4.00	93.1%	6.9%	3.72
Support		8.50	8.02	86.8%	13.2%	6.96
Total:	**22.96**	**23.50**	**23.29**	**87.2%**	**12.8%**	**20.31**
Seattle						
ALJ		20.80	20.47	84.6%	15.4%	17.32
ALJ - Pro Tem		7.72	7.72	94.6%	5.4%	7.30
Support		13.95	13.85	83.9%	16.1%	11.62
Total:	**43.41**	**42.47**	**42.04**	**86.2%**	**13.8%**	**36.24**
Spokane						
ALJ		14.00	13.78	83.1%	16.9%	11.45
ALJ - Pro Tem		1.38	1.38	100.0%	0.0%	1.38
Support		10.00	10.05	79.6%	20.4%	8.00
Total:	**23.84**	**25.38**	**25.21**	**82.6%**	**17.4%**	**20.83**
Vancouver						
ALJ		3.00	3.11	81.5%	18.5%	2.54
ALJ - Pro Tem		1.98	1.98	95.2%	4.8%	1.89
Support		4.00	4.01	78.9%	21.1%	3.17
Total:	**8.69**	**8.98**	**9.11**	**83.4%**	**16.6%**	**7.59**
Yakima						
ALJ		5.00	5.55	78.7%	21.3%	4.37
ALJ - Pro Tem		1.80	1.80	95.3%	4.7%	1.71
Support		4.00	4.22	86.3%	13.7%	3.64
Total:	**10.46**	**10.80**	**11.56**	84.0%	16.0%	**9.72**
Total OAH						
ALJ		53.80	54.20			-
ALJ - Pro Tem		16.87	16.87			-
Support		40.45	40.14			-
Total:	**109.35**	**111.12**	**111.21**	**85.1%**	**14.9%**	**94.69**

1. Mean average of Full Time Equivalent (FTE) positions reported as of 6/30/2008 and 6/30/2009 per OAH Fiscal Office. (Does not include contract support staff positions.)
2. Estimated FTE positions using annotated organization charts & TMS reported hours as a guide. Uses actual Pro Tem hours to calcuate Pro Tem FTE.
3. FTE positions calculated using actual hours reported and standard hours of 2080 per year. Is understated, since actual hours are not reported for all programs.
4. Percent of time worked, calculated from hours worked as reported in the Time Management System (TMS). Includes administrative time charged to customers/programs.
5. Percent of time charged to all leave categories, calculated from hours reported in the TMS.
6. On the job FTE includes time worked (net of leave). This is not purely case-related time, since administrative and

Office of Administrative Hearings

Appeals & Cases Closed Per FTE

FY 2008-2009

Office and Position Type	1 Headcount	2 Ave FTE Per Fiscal Office	3 Adjusted FTE	4 Appeals Received/ FTE/Month (Fiscal)	5 Cases Closed/ FTE/Month (Fiscal)	6 Appeals Received/ALJ/ Month (Adj FTE)	7 Cases Closed/ALJ/ Month (Adj. FTE)
Olympia							
ALJ	12.00		11.00				
ALJ - Pro Tem	11.00		4.00				
Support	11.00		8.50				
Total:	**34.00**	**22.96**	**23.50**	**46.50**	**46.37**	**71.20**	**71.00**
Seattle							
ALJ	26.00		20.80				
ALJ - Pro Tem	23.00		7.72				
Support	22.00		13.95				
Total:	**71.00**	**43.41**	**42.47**	**39.73**	**35.42**	**60.48**	**53.92**
Spokane							
ALJ	15.00		14.00				
ALJ - Pro Tem	9.00		1.38				
Support	10.00		10.00				
Total:	**34.00**	**23.84**	**25.38**	**54.45**	**49.11**	**84.37**	**76.09**
Vancouver							
ALJ	3.00		3.00				
ALJ - Pro Tem	3.00		1.98				
Support	4.00		4.00				
Total:	**10.00**	**8.69**	**8.98**	**53.23**	**51.99**	**92.85**	**90.68**
Yakima							
ALJ	5.00		5.00				
ALJ - Pro Tem	6.00		1.80				
Support	5.00		4.00				
Total:	**16.00**	**10.46**	**10.80**	**39.93**	**40.47**	**61.43**	**62.26**
Total OAH							
ALJ	61.00		53.80				
ALJ - Pro Tem	52.00		16.87				
Support	52.00		40.45				
Total:	**165.00**	**109.35**	**111.12**	**45.45**	**42.50**	**70.33**	**65.76**

	Appeals Filed (Intake) FY 2008-2009	Cases Closed FY 2008-2009
Olympia	**12,813**	**12,777**
ES	6,024	6,357
DSHS	6,386	6,015
Other	403	405
Seattle	**20,695**	**18,451**
ES	11,661	10,236
DSHS	8,566	7,971
Other	468	244
Spokane	**15,574**	**14,046**
ES	10,164	8,793
DSHS	5,343	5,161
Other	67	92
Vancouver	**5,551**	**5,421**
ES	1,447	1,530
DSHS	4,071	3,837
Other	33	54
Yakima	**5,009**	**5,077**
ES	1,894	2,087
DSHS	3,018	2,843
Other	97	147
Total	**59,642**	**55,772**
ES	31,190	29,003
DSHS	27,384	25,827
Other	1,068	943

1. Count of all unique individuals reporting hours to the Time Management System (TMS) July 2008- June 2009. Will overstate the actual headcount at any given time.

2. Mean average of Full Time Equivalent (FTE) positions reported as of 6/30/2008 and 6/30/2009 per OAH Fiscal Office. (Does not include contract support staff positions.)

3. Estimated FTE positions using annotated organization charts & TMS reported hours as a guide. Uses actual Pro Tem hours to calcuate Pro Tem FTE.

Source for ES and DSHS Intake and Cases Closed: FY 2008-2009 data reported in OAH's "Tracking FY 2010.xls". DSHS counts combine Everett and Seattle offices.

Source for "Other" intake and cases closed: CATS data extract prepared by OAH on 1/27/2010. Minor differences between CATS balances and "Tracker Report" balances were prorated to individual offices using relative percentages.

Appendix D: Case Tracking Application Replacement Options

Options	Advantages	Disadvantages
1) Maintain the status quo. Continue to support ACTS, HATSS, and CATS indefinitely.	• Least cost. • Least effort.	• Makes process standardization difficult, if not impossible. • Applications do not support required case management functionality and management information needs. • Applications are technologically obsolete and poorly documented. • Too costly to upgrade and re-platform these applications; would need to continue as-is. • Application maintenance is difficult. • Entails unacceptable level of technical risk • "Not recommended" according to 2008 Feasibility Study.
2) Standardize on a single current application for all appeal types.	• CATS is a generic case tracking tool and is already used for a wide variety of customers. • Offers some limited potential for standardization of processes.	• ACTS and HATSS were developed to meet specific customer needs. Would require re-negotiation with these key customers. • ACTS provides ES-specific notices and document templates. CATS has no "smart document" functionality. • All current applications are technologically obsolete and poorly documented. All have inadequate security. • Entails unacceptable level of technical risk • "Not recommended" according to 2008 Feasibility Study.
3) Develop a new case management/caseload tracking application.	• OAH could define and implement required functionality. • Allows OAH to standardize business processes.	• Expensive. Probably more expensive than implementing a COTS solution • Requires significant commitment of OAH resources to define functionality and test applications. • Date cleanup and conversion a significant challenge • Longest lead time of any option.

Options	Advantages	Disadvantages
4) Buy a Commercial Off-the-Shelf (COTS) application.	• Recommended by 2008 Feasibility Study. • Requires less requirements definition (less employee time up front) than custom application. • Lowest risk of obsolescence; software updates can be included. • Leverages investment of other customers in developing functionality	• Expensive. To be conservative, budget about $2m. • Requires contracted services for installation, customization, support. • Application will not be available for a year or more (given procurement and installation). • Date cleanup and conversion a significant challenge • Recommended option per 2008 Feasibility Study. • Lowest long term technology and vendor risks
5) Create an interim case tracking solution using standard State of WA tools and industry standard technologies and products. Track appeals & events in a SQL database. Include form generation capabilities (as with existing WordPerfect-based functionality) Use SharePoint or similar to create "smart forms", manage and share documents electronically. Use Outlook to enhance scheduling capabilities.	• Not as expensive as a custom application or COTS. • Allows OAH to standardize business processes. • Makes use of state-supported technologies / lowers technology-related risk • Functionality could meet basic business needs.	• Moderately expensive. With discipline, costs could be held to ~$300K. • Would require some contracted services for development and implementation. • Less robust functionality than COTS solution. Expect similar functionality to current applications. • Would require agreement from major customers. • Date cleanup and conversion a significant challenge • May only be an interim (3 – 5 year) solution. • Data conversion would need to be addressed.

Appendix E: Assumptions and Support for Cost Estimates to Implement Information Technology Recommendations

We did not attempt to conduct a full feasibility study of technology options for this review. Following are the assumptions we used to create a general estimate of costs for each recommendation:

COTS Case Management System

In 2008 OAH evaluated the feasibility of replacing the legacy case tracking applications with a "Commercial Off-The-Shelf" ("COTS") case management system ("CMS"). The estimated one-time costs were estimated to be ~$1m.

Several factors suggest that this estimate is aggressive. Some of the challenges for OAH to implement a COTS CMS are:

Requirements and Design

There are some significant challenges in respect of the CMS design, including:

- Case Management Systems involve very advanced functions and features including automated scheduling, workflow management, document management integration, and much more. These products are not really comparable to the legacy case tracking applications. In addition to functionality not incorporated into existing applications, CMS systems often include very different concepts about how cases are managed through their life cycle.
- Most people who use information systems tend naturally to think in terms of incremental improvements in their applications. Radical changes, because of unfamiliar technology or different ideas about case and case flow management, are much more difficult to fully accept.
- Users of the legacy applications will be very challenged to define requirements and guide the design process given the limited budget to define requirements and configurations needed included in the 2008 estimate.

The 2008 estimate for this aspect of the project should be increased from ~$25,000 to $100,000. This represents an increase in effort from about 4.5 person-weeks of effort to about 18 person-weeks of effort.

Data Conversion

The 2008 estimate included an estimate of $20,000 for data conversion, about 3.5 person-weeks of effort. This estimate would pretty tight to develop and test a single conversion. However, data needs to be converted from three legacy applications. This suggests that the data conversion estimate should be tripled.

There is an additional concern regarding data conversion. This relates to the quality of the data in the legacy systems. These applications lack controls to ensure that all data is accurate, complete and timely. This strongly suggests that significant effort will be required for "data cleanup". Prudence suggests an additional increase is needed to ensure that the CMS has complete and accurate data.

A conservative estimate is that $120,000 should be budgeted for data conversion.

Configuration/Customization

The 2008 estimate budgeted $142,500 (or about 25 person-weeks) to configure and/or modify the COTS CMS. This is roughly a 1:1 ratio for services to licensing costs (estimated to be $150,000). This is not realistic. The traditional ratio for implementation services is 2:1. Recently, vendors for many COTS offerings have developed new products that significantly expand the ability to "configure" the software to meet customers' specific requirements. While this provides customers with better functionality, it requires much more implementation services than older products. Some of the most widely used COTS now routinely result in implementation services costs on the order of 10 to 20 times licensing costs.

The particular COTS CMS selected might not possess those aspects of configurability that escalate the implementation effort. However, it is prudent to budget for at least the 2:1 ratio. An increase in the implementation budget of $150,000 is indicated.

User Training

The 2008 budget did not include a specific allowance to develop and deliver training to end users. Given that a CMS would require major changes in how the work of OAH is performed some allowance for training would be prudent. Allowing 4 person-weeks to develop training and another 4 to deliver training, an additional $45,000 should be budgeted.

User & Acceptance Testing

The 2008 estimate include a budget of $61,000 for user and acceptance testing. This is a reasonable budget if the OAH was moving from one legacy application to a roughly equivalent system. However, OAH is moving from three incompatible legacy applications to a substantially different case management system. User and acceptance testing will take longer given that there is no simple manner to compare "before" and "after" and determine that the new system meets (new) needs. It is prudent to budget an additional $50,000 for this line item.

Post-Conversion

In the period immediately after implementing a new system there is, typically, a significant effort needed to fix bugs, support end users, and similar tasks. The 2008 estimate did not include a specific allowance for this requirement. A modest budget for this would be $30,000 (about 5.5 person-weeks of effort).

Project Management

The preceding discussion involves substantial increase in the effort required to implement a COTS CMS over the 2008 estimate. This increases materially the effort required to manage the implementation project. At least an additional $100,000 should be budgeted to manage the increased effort.

Contingency

The 2008 estimate listed about $790,000 in identified implementation costs. Because large projects always encounter the unexpected, a contingency allowance of 20% was provided for in the estimate. This brought the total estimate to about $950,000.

There are two important observations to be made in respect of the total estimate. First, the preceding discussion illustrates that OAH would be prudent to budget for about $500,000 in additional implementation costs.

The second import observation is the use of 20% to define the contingency. This is the center of the standard range (i.e., 15% to 25%) that is commonly used to provide for overruns and unexpected requirements. This figure is, in our view, not supported by the real world

experience with major information system projects. Specifically, there are a couple of factors which tend to drive significant cost overruns. The first is the need to undertake significant "rework" after the application or components of it are delivered to it for testing.

"Rework" is the need to modify or extend the application as delivered. Sometimes this because the product delivered doesn't not adhere to the design specifications agreed to by the users. In other cases, rework is required because users realize they need different and/or additional functionality once they have "hands on" access to the application. This particularly the case, as would be the case at OAH, when there are major changes between the legacy and new applications.

The other factor that often leads to major overruns is that of "scope creep". This refers to the addition of additional functions and features to the design as well as addressing needs not originally contemplated when the project was initiated. Scope creep is often very well intentioned as the additional expenditures may result in a better system or address other issues of concern to the organization. The problem is that these incremental decisions are often made informally and the business case for increased costs may not be there. Furthermore, scope creep, even if justified, can exhaust the limited funding allocated to the project.

Of course, a contingency is also needed for more modest problems like delays caused by external parties, productivity problems, technical snags and so forth.

Major overruns on information technology projects are common enough to have become a cliché. This strongly argues for a much higher contingency to ensure OAH is successful when implementing a COTS CMS. Given the very limited definition of the scope and design of a CMS projects and considering the preceding discussion, we recommend a conservative contingency of 50%.

One-Time Cost Estimate

Our estimate for OAH to implement a COTS CMS is based on the 2008 pre-contingency estimate and is as follows:

Estimate Line Item	Incremental Costs	Total
2008 Pre-Contingency Estimate		$790,000
Requirements &Design	75,000	
Data Conversion	100,000	
Configuration / Customization	150,000	
User Training	45,000	
User & Acceptance Training	50,000	
Post-Conversion Support	30,000	
Project Management	100,000	
Identified Additional Costs		550,000
Subtotal		1,340,000
Contingency @ 50%		670,000
TOTAL		$2,010,000

Our estimate for OAH to implement a COTS CMS is $2m in one-time costs.

Conclusion

This is a very conservative estimate of the costs to implement a COTS CMS. OAH may be able to implement such a system for less than our figure of $2m. A lower amount might be possible with very strict control of scope and the willingness to compromise on implementing "nice to have" features. OAH could also reduce its costs by limiting the extent of data clean up and conversion it undertakes.

However, the risk to the OAH increases as the budget is reduced. This includes the risk of a material overrun in implementation costs. It also includes a risk that OAH will not realize the potential benefits of a COTS CMS without sufficient budget to exploit the potential of the product within the context of the agency's operations.

Replace Legacy Case Tracking Applications

We support the conclusion of the 2008 study that OAH should implement a COTS CMS application (though we believe a more conservative budget would be prudent). However, it appears unlikely that OAH will be able to obtain the funding required for the foreseeable future.

Assuming that a COTS CMS is not financially viable, OAH must still address the major risks associate with its legacy case tracking applications. The alternative approach is to simply replace ACTS, HATSS and CATS with a single new case tracking applications. To minimize the cost and difficulty of this initiative, the new application should essentially replicate the best features of the existing applications. The replacement application will offer limited benefits to end users, though it should be possible to improve management information.

Assumptions

To minimize the cost to replace the legacy applications very strict scope control will be needed. The following assumptions were made in estimating costs:

1. The project simply replaces the basic case tracking functionality of the existing applications.
2. OAH will select the best overall tracking design amongst the three legacy applications. That is, the legacy application that has the best overall mechanism for tracking cases from initiation to final resolution will be implemented in the replacement system.
3. OAH will compare features from each legacy application and pick the best one on a feature/function by feature/function basis. Note that OAH will not be designing anything new; it will simply pick design points from the existing applications.
4. Only minor incremental improvements in functionality will be accepted. Any "nice-to-have" which involves any incremental effort will not be implemented.
5. Data conversion will be limited to current ongoing cases and whatever data is required to allow for reporting for the current reporting period. A mechanism to freeze and save legacy data in the legacy applications will need to be found to ensure it is not lost.
6. User training costs would be modest since the new system is essential a blend of the features in the legacy systems.
7. OAH manages the project, minimizing project management costs.

8. Modest costs for hardware or other infrastructure upgrades are needed.

This approach is intended to minimize one-time costs. If this strict scope control approach is not adopted, then costs will increase, perhaps significantly.

Estimate

OAH should budget $200,000 to establish the design, code, test and convert to a replacement project. Additionally, the following amounts should be budgeted:

- $20,000 for hardware and related upgrades. This is the same as the 2008 estimate.
- $15,000 for user training. A limited budget for this is needed because the replacement application will be similar to the legacy systems.
- $15,000 for post-conversion support. The limited scope of this project should make this level of support realistic.
- A 20% contingency of $50,000. Again, the modest scope of this project means a lower percentage rate is acceptable.

Our estimate to replace the legacy case tracking applications is, therefore, $300,000.

Conclusion

The proposal to implement a replacement case tracking application is intended to address the serious risks posed by the legacy applications at the minimum cost. The replacement application may be considered to be an interim solution until OAH is able to obtain funding for a COTS CMS.

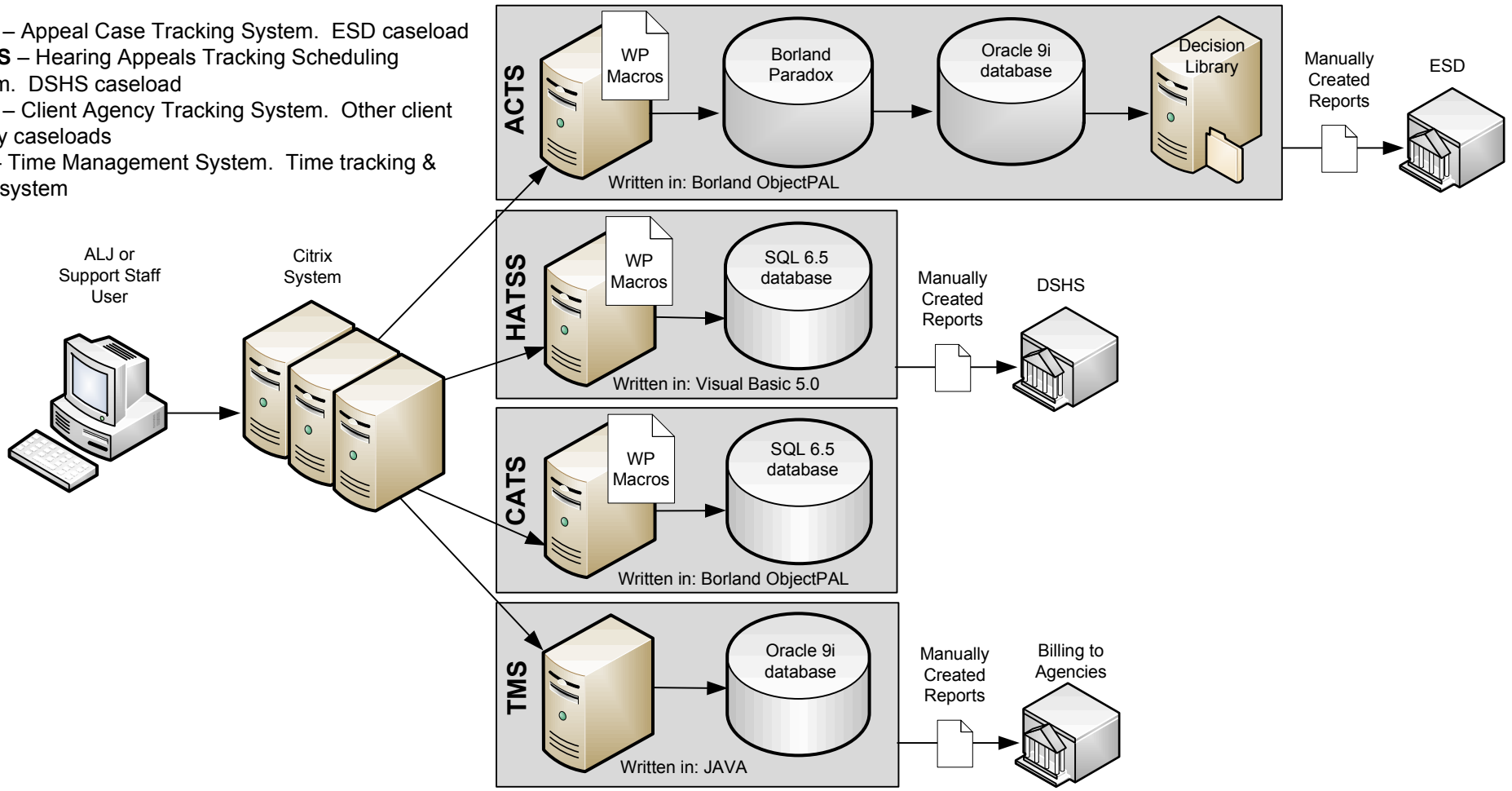
If OAH were able to obtain additional funding, it would have more flexibility to add functions and features that would improve efficiency and/or service levels.

Appendix F: OAH IT Systems Diagrams

Following are diagrams of OAH's information technology systems and applications, including ACTS, CATS, HATSS, and the Time Management System (TMS). Also included is a conceptual diagram of a future case management application. These diagrams were created by Don Chase, Chief Information Officer of OAH.

OAH IT Systems

- **ACTS** – Appeal Case Tracking System. ESD caseload
- **HATSS** – Hearing Appeals Tracking Scheduling System. DSHS caseload
- **CATS** – Client Agency Tracking System. Other client agency caseloads
- **TMS** – Time Management System. Time tracking & billing system

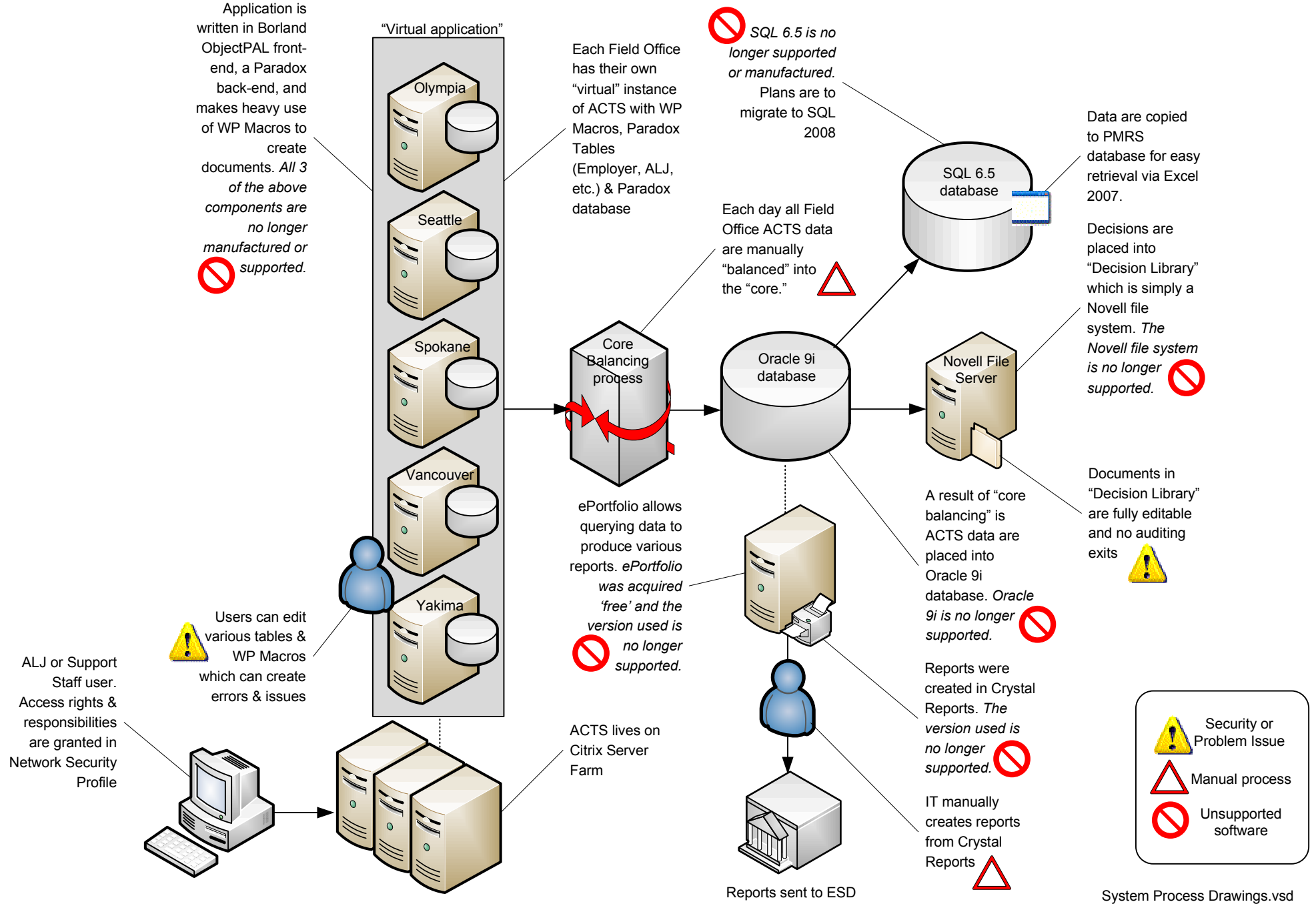


Limitations:

- Systems are independent of each other – no data sharing or transfer of data between systems.
- Systems use outdated and non-supported software, e.g., Borland ObjectPAL, Paradox, MS SQL 6.5, Oracle 9i, WordPerfect Macros.
- Systems use little or no data error checking.
- No standardized data dictionary.
- No centralized production performance reporting.
- Little or no coordination or data sharing between client agencies and OAH.

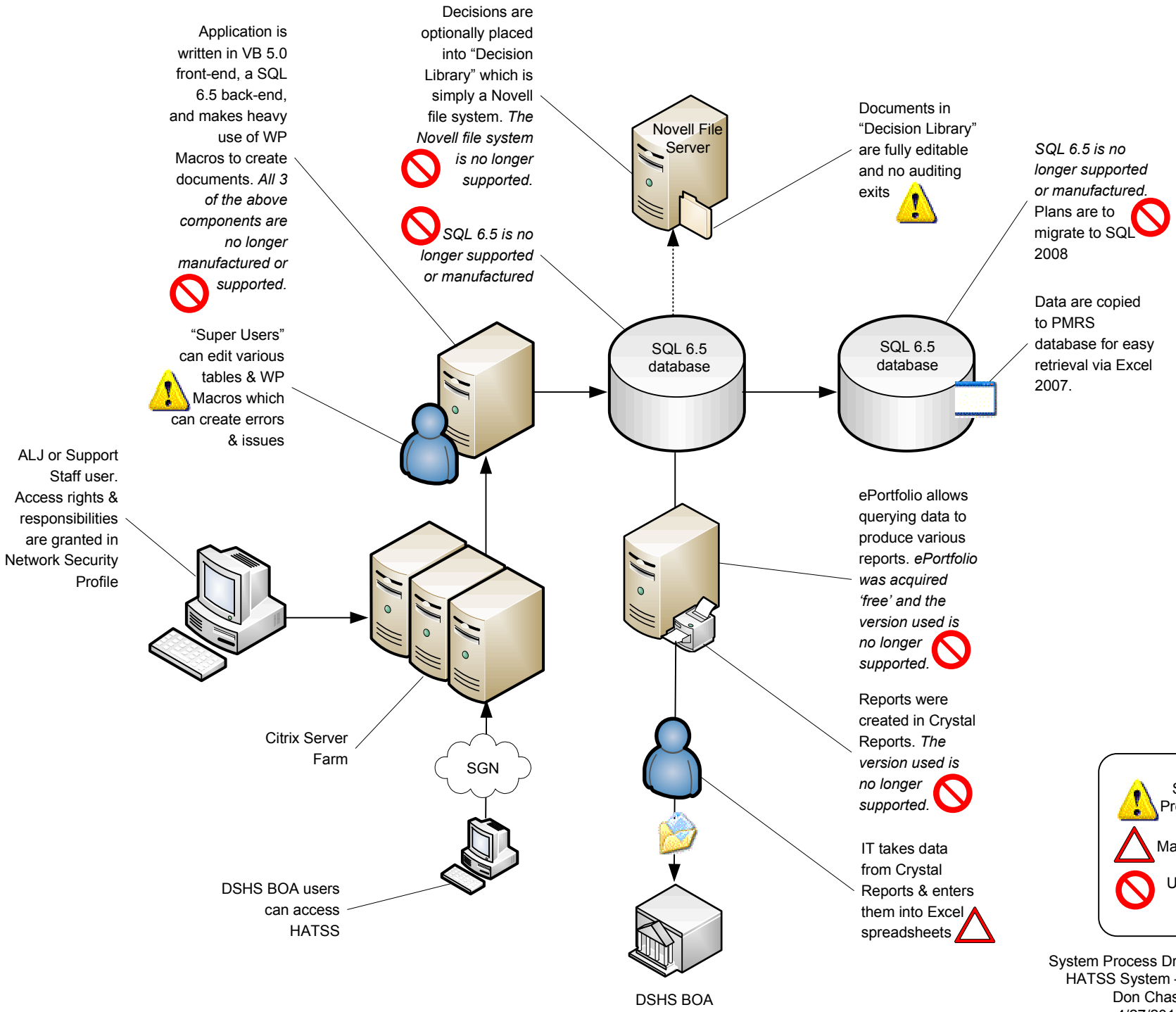
ACTS System

ACTS – Appeal Case Tracking System. ESD caseload



HATSS System

HATSS – Hearing Appeals Tracking Scheduling System. DSHS caseload



System Process Drawings.vsd
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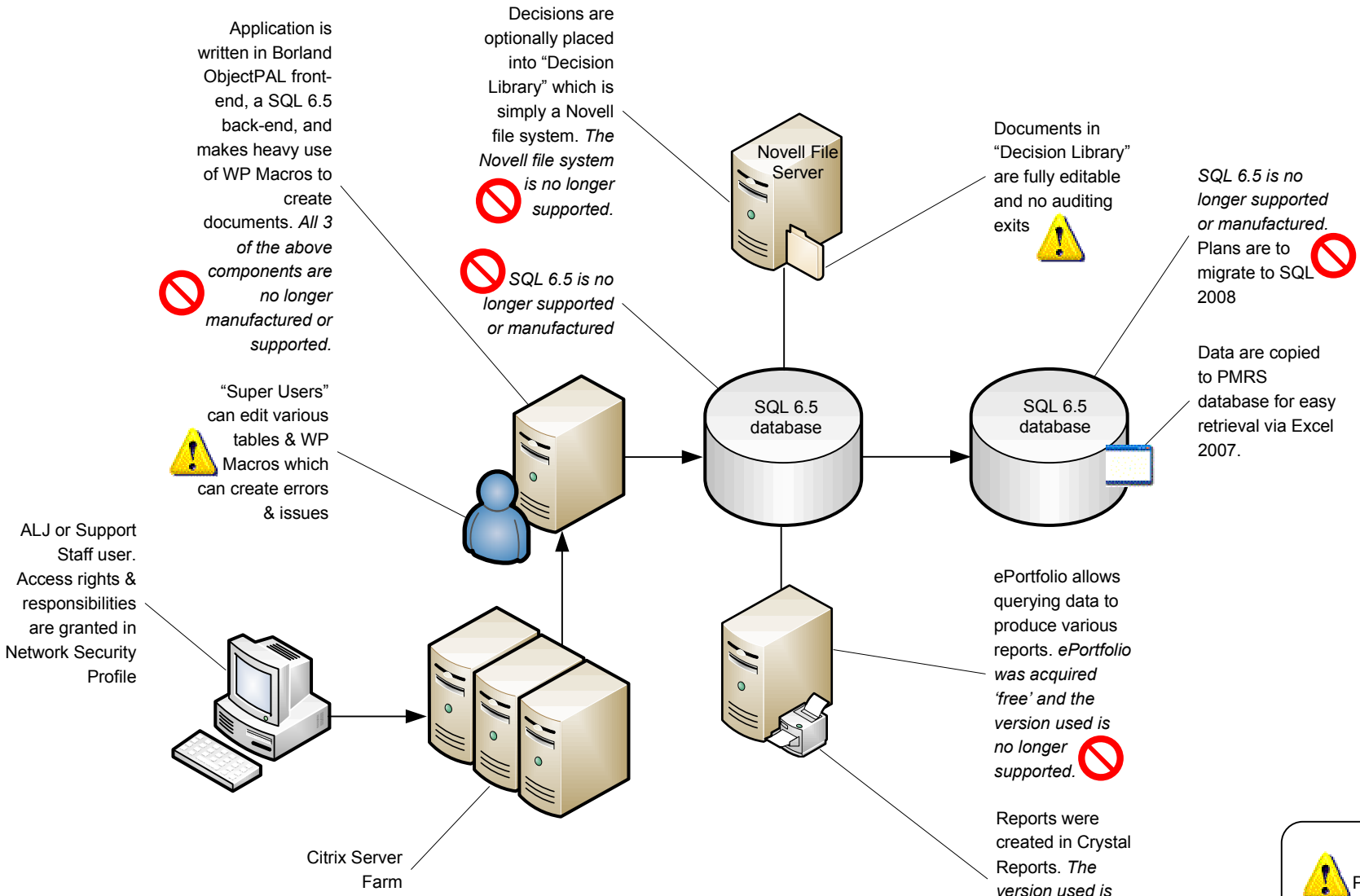
CATS System

CATS – Client Agency Tracking System. Other client agency caseloads



System Process Drawings.vsd
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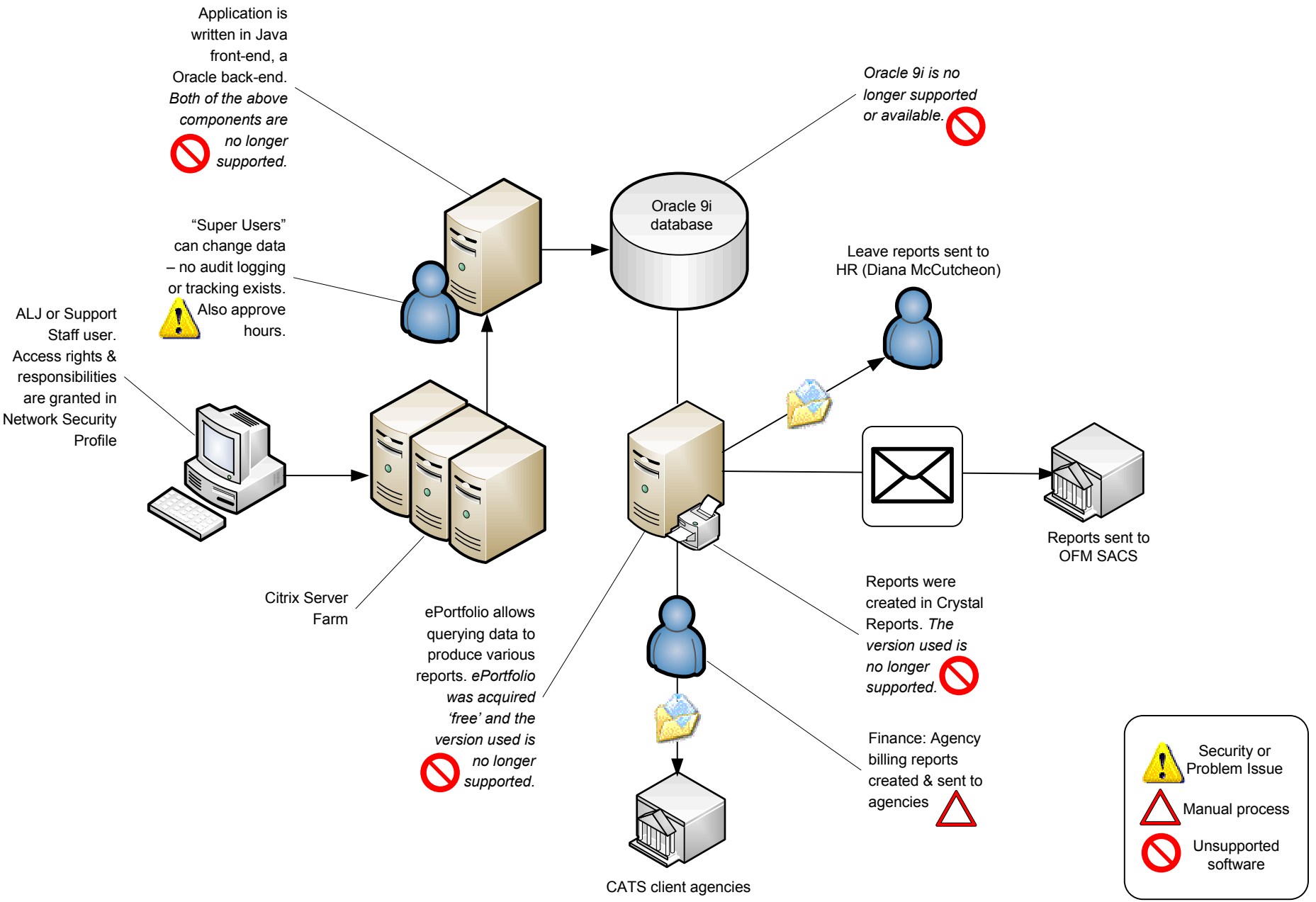
TMS System

TMS – Time Management System. Time tracking & billing system



System Process Drawings.vsd
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Possible Future CMS System

CMS – Case Management System that can be used for all OAH caseloads (ES, DSHS, CATS)